

**OBJECTION TO CLAIMS 19-21**

Claim 19-21 stand objected to under 37 CFR 1.75(c) as being improper form because multiple dependent claim should refer to a previous claim in the alternative. Applicants have amended claim 19 to recite dependency in the alternative. Therefore, withdrawal of this objection is respectfully requested.

**REJECTION OF CLAIMS UNDER 35 U.S.C. §112, FIRST PARAGRAPH**

Claims 15-18 and 22-31 stand rejected under 35 U.S.C. §112, first paragraph because the Examiner contends that the "specification does not enable any person skilled in the art of which its pertains to, or with which it most nearly connected to make and use, invention commensurate in scope with these claims." Applicants traverse this rejection for the reasons presented below.

Applicants respectfully submit that an artisan having ordinary skill in the pertinent art could obtain the instantly claimed peptides with substantially no experimentation or with not an undue amount of experimentation. The instant disclosure provides sufficient information with respect to the nature and characteristics of the gp100 peptides so that an artisan would know what is encompassed by the instantly claimed peptides. Therefore, applicants believe that the claims are fully enabled by the specification.

The Examiner contends, with respect to claim 15, that there is no guidance in the specification "as to the length of the peptides, the substitutions that could be tolerated by the peptides, or even the function of the peptides." Contrary to the Examiner's assertion, applicants urge that claim 15 defines a particular class of substances all of which are

supported by the disclosure. The number of peptides encompassed by the claim is delineated by the requirements that the amino acids must be contiguous amino acids within a gp100 sequence and that, the peptides are recognized by T-lymphocytes. Moreover, applicants specification provides gp100 sequences from which each peptides may be derived (page 43, lines 32-35; page 44; page 45, lines 1-2); alterations that can be made within the peptides (page 45, lines 30-35; page 46, lines 1-35; pages 47-49; page 50, lines 1-19), and the length of the peptides (page 9, lines 30-35; page 10, lines 1-3). Hence, it is submitted that the peptides defined in claim 15 are fully supported by the disclosure. Applicants respectfully request withdrawal of this ground of rejection.

The Examiner contends that in claim 22 "any amino acid" reads on naturally and non-naturally occurring amino acids. For the purpose of facilitating prosecution, and without relinquishing any rights that may accrue under the doctrine of equivalents, applicants have amended claim 22 to recite "naturally occurring" amino acids. Withdrawal of this ground of rejection is respectfully requested.

Regarding claims 30 and 31 for the purpose of facilitating prosecution, and without relinquishing any rights under that may accrue under the doctrine of equivalents, applicants have deleted the terms "prevention" and "vaccine" from the claims. Reconsideration and withdrawal of this ground of rejection is therefore respectfully requested.

**REJECTION OF CLAIMS UNDER 35 U.S.C. §112,  
SECOND PARAGRAPH**

Claims 15-18 and 22-31 stand rejected under 35 U.S.C. §112, second paragraph, for failing to distinctly point out and claim what applicants regard as the invention. Claims 17, 22, 23-26 and 30 have been amended as per the Examiner's suggestions. Claims 28-29 and 31 have been amended to recite dependency from only the elected claims. Reconsideration and withdrawal of this ground of rejection with respect to these claims is therefore respectfully requested.

The Examiner also contends that the terminology "derived from" in claim 15 is "vague and indefinite". Applicants have amended claim 15 to recite that the contiguous amino acid sequences are within a gp100 sequence. Applicants therefor respectfully request removal of this ground of rejection.

**REJECTION OF CLAIMS UNDER 35 U.S.C. §102**

Claims 15-16 and 27-28 stand rejected under 35 U.S.C. §102(a) as being anticipated by Maresh et al. DNA and Cell Biology, vol. 13(2), p.87 (2/94). Applicants traverse this rejection for the reasons presented below.

The present invention relates to gp100 immunogenic peptides melanoma antigen recognized by T-cells. Maresh et al. describes a cDNA that involves a melanoma associated ME20 antigen. The cDNA for the ME20 antigen encodes a gp100 (see page 37, lines 5-30) protein. However, Maresch et al. does not disclose any gp100 peptides

recognized by T-lymphocytes. Absent such a teaching, Maresch et al. cannot anticipate the instantly claimed invention.

Claims 15-16 and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 92/21767. Applicants traverse this ground of rejection.

Claims 15-16 and 27-28 are directed, to peptides recognized by lymphocytes, and obtained from a gp100 amino acid sequences. PCT Application WO 92/21767 discloses that residues 25-53 of gp100 Pmel-17) are recognized by antibodies. However, this reference does not disclose that residues 25-35 of the sequence are recognized by T-lymphocytes. In fact, the PCT does not disclose any contiguous amino acid sequence or peptide said to be recognized by T-lymphocytes. Therefor, WO 92/21767 cannot anticipate the claimed invention. Reconsideration and withdrawal of this rejection is respectfully requested.

**AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment, or credit any overpayment to Deposit Account No. 13-4500, Order No. 2026-4124US1.

In the event that an extension of time is required or which may be required in addition to that requested in the petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or

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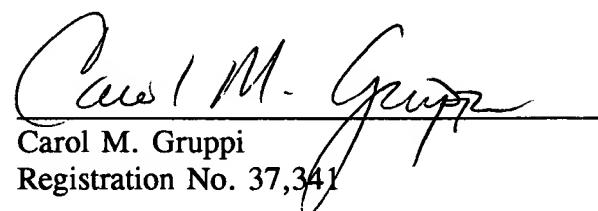
credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 2026-4124US1. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,

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Date: March 31, 1997

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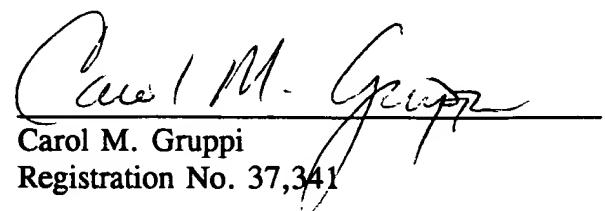
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